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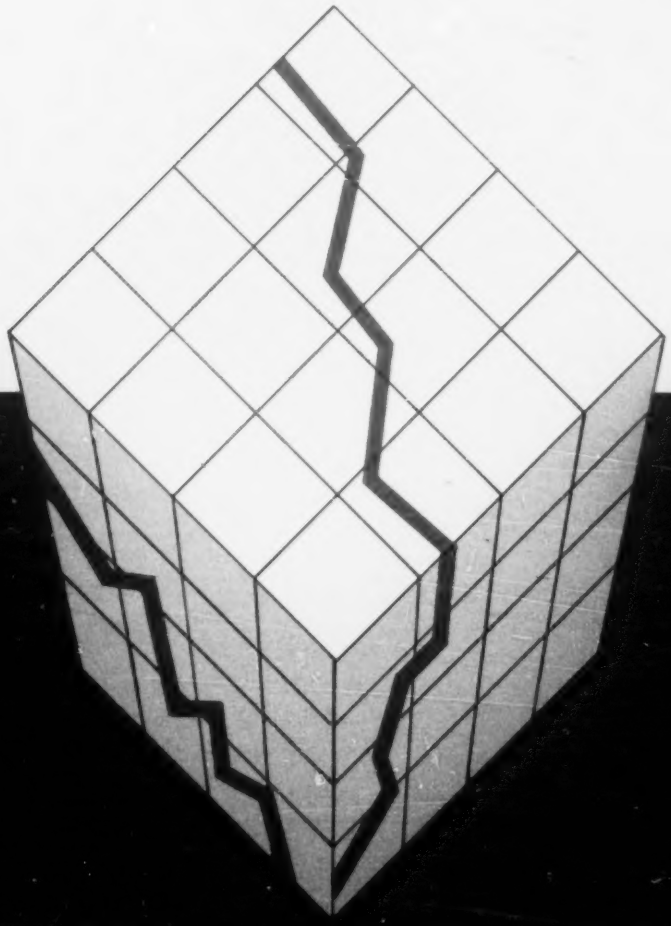

Sales of Natural Gas Liquids and Liquefied Refinery Gases

American Petroleum Institute

NPGA PROPANE GAS

GPA Gas Processors Association

1987 Sales of Natural Gas Liquids and Liquefied Refinery Gases

Finance, Accounting and
Statistics Department
October 1988

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Preface

The 1987 Sales of Natural Gas Liquids and Liquefied Refinery Gases marks the publication of the fourth survey jointly sponsored by the American Petroleum Institute (API), the Gas Processors Association (GPA), and the National PROPANE GAS Association (NPGA).

Sales of natural gas liquids and liquefied refinery gases totalled 34.0 billion gallons in 1987. This volume reflected an increase of 1.7 billion gallons or 5.1 percent from 1986. By product, propane, butane and pentanes plus registered increases of 11.7, 2.6 and 2.4 percents respectively. Conversely, ethane usage decreased 1.9 percent.

According to the survey, residential and commercial usage increased 1.5 percent and chemical use was up 18.9 percent. Motor gasoline blending increased only 0.8 percent, and other uses increased by 23.2 percent. All other sectors showed declines, with internal-combustion fuel down 12.5 percent, industrial use down 5.9 percent, gas utility down 61.4 percent, and farm use down 10.7 percent.

The following table illustrates the percentage distribution of total sales by sector for both 1987 and 1986.

Sector	1987 %	1986 %
Residental & Commercial	16.8	17.4
Internal-Combustion Fuel	2.1	2.5
Chemical	39.1	34.6
Industrial	5.8	6.5
Gas Utility	0.7	1.9
Farm	4.3	5.1
Other	2.7	2.3
Gasoline Blending	28.5	29.7
Total	100.0	100.0

The ten states which had the largest volumes of sales are ranked below. Their sales came to 27.3 billion gallons or 80.4 percent of the total national volume.

Rank	State	Volume (M/gals)	% of Total
1.	Texas	14,647,901	43.1
2.	Louisiana	4,041,499	11.9
3.	Illinois	2,190,597	6.4
4.	Kansas	1,807,965	5.3
5.	California	1,440,212	4.3
6.	Michigan	916,397	2.7
7.	Ohio	784,637	2.3
8.	Indiana	521,913	1.6
9.	Pennsylvania	487,119	1.4
10.	Kentucky	453,719	1.4
	Total	27,291,959	80.4

Washington, D.C.
October 1988

TABLE 1. Sales of Natural Gas Liquids and Liquefied Refinery Gases in the United States, 1987 and 1986 (Thousands of Gallons)

Category	1987	1986	VOLUME CHANGE	% CHANGE
Product Type:				
Ethane 1/	7,481,292	7,627,158	-145,866	-1.9
Propane 2/	14,293,860	12,791,268	1,502,592	11.7
Butane 3/	7,589,652	7,398,762	190,890	2.6
Pentanes Plus 4/	4,599,422	4,490,178	109,244	2.4
United States Total	33,964,226	32,307,366	1,656,860	5.1
Principal Uses:				
Residential & Commercial	5,692,639	5,606,699	85,940	1.5
Internal-Combustion Fuel	718,013	820,504	-102,491	-12.5
Chemical/Industrial:				
Chemical 5/6/	13,286,752	11,179,406	2,107,346	18.9
Industrial 7/	1,984,073	2,108,003	-123,930	-5.9
Gas Utility	238,819	619,189	-380,370	-61.4
Farm	1,458,802	1,633,888	-175,086	-10.7
Other 8/	911,545	740,096	171,449	23.2
Gasoline Blending	9,673,583	9,599,581	74,002	0.8
United States Total	33,964,226	32,307,366	1,656,860	5.1

1/ Includes ethylene.
2/ Includes propylene.
3/ Includes isobutane and butylene.
4/ Includes isopentane, natural gasoline and plant condensate. Excludes field condensate.
5/ Includes use in synthetic rubber manufacture.
6/ The reported data strongly suggest that this category includes not only ethane, propane, butane and pentanes plus consumed as chemical feedstocks, but some refinery olefins and chemical plant fuel usage.
7/ Includes refinery fuel use.
8/ Includes use as synthetic natural gas feedstock and use in secondary recovery projects.

Source: API, "Sales of Natural Gas Liquids and Liquefied Refinery Gases," Annual Survey.

Table 2. Sales of Natural Gas Liquids and Liquefied Refinery Gases by Product Type, PAD District and State, 1987 and 1986 (Thousands of Gallons)

District & State	Ethane		Propane		Butane	
	1987	1986	1987	1986	1987	1986
PAD Dist. I						
New England						
Connecticut...	-	W	60,501	44,136	W	W
Maine.....	-	-	51,248	42,465	-	-
Massachusetts.	-	W	102,959	90,850	W	W
New Hampshire.	-	-	82,561	71,272	-	-
Rhode Island..	-	-	24,465	18,790	W	W
Vermont.....	-	-	44,281	37,026	-	-
Central Atlantic						
Delaware.....	-	-	36,717	33,084	W	W
Maryland/D.C..	-	W	69,378	58,788	W	W
New Jersey....	-	-	171,251	157,439	174,962	182,253
New York.....	-	-	221,505	208,271	W	W
Pennsylvania..	W	W	205,110	186,199	W	312,672
Lower Atlantic						
Florida.....	W	20,144	351,098	429,713	W	4,310
Georgia.....	-	-	257,922	272,221	W	W
North Carolina	-	-	356,636	309,587	W	W
South Carolina	-	-	144,832	122,678	W	W
Virginia.....	-	-	165,587	141,783	W	W
West Virginia.	-	-	38,622	38,196	-	W
Total.....	99,241	117,600	2,384,673	2,262,498	340,617	536,913
PAD Dist. II						
Illinois.....	959,620	629,113	688,646	721,452	479,560	679,054
Indiana.....	-	W	390,302	329,128	31,210	97,390
Iowa.....	-	W	373,554	586,005	W	W
Kansas.....	287,815	437,118	209,937	180,480	582,250	483,638
Kentucky.....	W	W	317,630	251,123	112,950	118,286
Michigan.....	-	W	735,740	695,252	153,185	169,170
Minnesota.....	-	-	314,961	395,714	W	W
Missouri.....	-	-	361,960	383,653	1,213	W
Nebraska.....	-	-	199,568	163,225	1,068	534
North Dakota..	-	-	88,566	89,402	35,309	56,741
Ohio.....	W	W	533,951	518,888	W	61,574
Oklahoma.....	1,393	2,280	186,166	205,670	185,770	217,804
South Dakota..	-	-	139,392	104,189	W	-
Tennessee.....	-	-	144,979	165,330	W	W
Wisconsin.....	-	-	321,256	346,655	W	W
Total.....	1,459,747	1,326,464	5,006,608	5,136,166	1,644,765	1,910,286
PAD Dist. III						
Alabama.....	-	W	199,686	174,913	8,015	501
Arkansas.....	-	-	151,370	167,212	2,666	5,535
Louisiana.....	1,063,420	1,129,731	463,629	519,155	1,755,485	1,750,134
Mississippi...	-	-	151,952	146,667	31,917	25,033
New Mexico....	W	-	67,348	70,668	2,678	22,725
Texas.....	4,825,781	4,987,792	4,623,307	3,078,102	2,736,215	2,472,176
Total.....	5,889,216	6,117,574	5,657,292	4,156,717	4,536,976	4,276,104
PAD Dist. IV						
Colorado.....	-	-	90,532	89,477	15,008	8,302
Idaho.....	-	-	25,367	30,718	W	-
Montana.....	-	-	50,956	63,384	91,762	W
Utah.....	-	-	41,868	37,892	90,781	78,249
Wyoming.....	W	W	88,273	55,578	58,277	107,973
Total.....	446	1,132	296,996	277,049	256,080	196,644
PAD Dist. V						
Alaska.....	-	-	11,799	W	-	-
Arizona.....	-	-	78,761	82,183	22,832	9,711
California....	W	W	657,351	653,953	592,641	356,327
Hawaii.....	-	-	W	W	-	-
Nevada.....	-	-	39,855	45,894	-	W
Oregon.....	-	-	63,848	71,660	W	W
Washington....	-	-	89,250	85,136	195,384	112,405
Total.....	32,642	64,388	948,291	958,838	811,214	478,815
U.S. Total.....	7,481,292	7,627,158	14,293,860	12,791,268	7,589,652	7,398,762

W Data withheld to avoid disclosure of individual company data.

Source: API, "Sales of Natural Gas Liquids and Liquefied Refinery Gases," Annual Survey.

Pentanes Plus		Total		
1987	1986	1987	1986	District & State
				PAD Dist. I
				New England
-	W	61,194	46,933	...Connecticut
-	-	51,248	42,465	.....Maine
W	W	103,782	96,788	.Massachusetts
-	-	82,561	71,272	.New Hampshire
-	-	26,112	24,500	..Rhode Island
-	-	44,281	37,026	.....Vermont
				Central Atlantic
-	-	53,117	50,956	.....Delaware
-	-	69,569	60,335	.Maryland/D.C.
W	W	348,394	356,699	....New Jersey
W	W	221,601	209,498	.....New York
W	W	487,119	609,784	..Pennsylvania
				Lower Atlantic
W	W	380,006	640,205	.....Florida
W	W	259,812	282,443	.....Georgia
W	W	358,852	314,921	North Carolina
W	W	145,216	124,516	South Carolina
W	W	165,910	142,242	.....Virginia
W	W	38,761	39,948	.West Virginia
73,004	233,520	2,897,535	3,150,531	.....Total
				PAD Dist. II
62,771	171,483	2,190,597	2,201,102	.....Illinois
100,401	W	521,913	571,243	.....Indiana
W	W	376,321	589,213	.....Iowa
727,963	551,079	1,807,965	1,652,315	.....Kansas
17,818	23,936	453,719	419,595	.....Kentucky
27,472	46,975	916,397	911,664	.....Michigan
W	W	329,506	417,177	....Minnesota
W	W	363,640	384,611	.....Missouri
403	539	201,039	164,298	.....Nebraska
25,616	11,866	149,491	158,009	..North Dakota
W	W	784,637	791,622	.....Ohio
52,633	76,817	425,962	502,571	.....Oklahoma
-	-	139,760	104,189	..South Dakota
W	W	146,545	167,142	....Tennessee
W	W	321,385	347,047	....Wisconsin
1,017,757	1,008,882	9,128,877	9,381,798	.....Total
				PAD Dist. III
W	1,076	208,719	176,541	.....Alabama
W	W	154,559	173,067	.....Arkansas
758,965	469,979	4,041,499	3,868,999	....Louisiana
W	W	184,195	171,889	...Mississippi
59,271	51,539	129,312	144,932	....New Mexico
2,462,598	2,100,427	14,647,901	12,638,497	.....Texas
3,282,701	2,623,530	19,366,185	17,173,925	.....Total
				PAD Dist. IV
3,233	24,380	108,773	122,159	.....Colorado
-	-	25,619	30,718	.....Idaho
5,645	W	148,363	79,522	.....Montana
31,214	212,822	163,863	328,963	.....Utah
28,207	111,366	175,203	276,049	.....Wyoming
68,299	362,586	621,821	837,411	.....Total
				PAD Dist. V
W	-	11,803	13,300	.....Alaska
W	W	101,653	92,270	.....Arizona
157,578	261,211	1,440,212	1,335,079	....California
-	-	7,427	6,712	.....Hawaii
W	-	39,865	46,030	.....Nevada
W	W	64,214	71,969	.....Oregon
-	-	284,634	197,541	....Washington
157,661	261,660	1,949,808	1,763,701	.....Total
4,599,422	4,490,178	33,964,226	32,307,366	.....U.S. Total

Table 3. Sales of Natural Gas Liquids and Liquefied Refinery Gases, by End Use, PAD District and State, 1987 and 1986 (Thousands of Gallons)

District & State	Residential & Commercial 1987	Residential & Commercial 1986	Internal Combustion Fuel 1987	Internal Combustion Fuel 1986	Chemical 1/ 1987	Chemical 1/ 1986	Industrial 2/ 1987	Industrial 2/ 1986
PAD Dist. I								
New England								
Connecticut	38,309	28,803	2,328	1,995	W	W	14,419	11,640
Maine	38,809	26,126	1,685	2,064	W	W	8,641	10,479
Massachusetts	65,539	58,262	5,570	5,574	W	W	12,117	9,584
New Hampshire	59,108	52,961	2,029	1,467	-	-	7,929	9,612
Rhode Island	14,644	13,120	906	1,649	-	W	5,916	3,489
Vermont	36,848	31,134	1,159	920	-	-	4,908	3,973
Central Atlantic								
Delaware	23,699	21,163	335	4,012	W	W	4,374	W
Maryland/D.C.	45,793	38,907	3,515	3,196	-	-	11,787	11,047
New Jersey	53,439	52,537	8,779	9,184	165,228	128,240	21,068	26,800
New York	194,829	168,187	9,452	9,698	W	W	15,619	20,752
Pennsylvania	108,235	101,385	16,538	17,237	W	W	142,885	141,234
Lower Atlantic								
Florida	264,245	328,894	21,247	39,381	W	24,348	22,750	25,371
Georgia	178,427	181,892	14,197	16,920	W	W	16,627	18,922
North Carolina	186,925	162,973	13,611	15,272	753	835	37,951	37,011
South Carolina	94,911	86,003	7,635	6,803	596	1,034	21,614	14,718
Virginia	90,136	78,466	8,937	5,079	335	797	26,319	32,160
West Virginia	13,018	11,693	1,564	1,760	20,658	W	986	1,893
Total	1,496,914	1,442,506	119,487	142,211	197,641	209,276	375,910	382,034
PAD Dist. II								
Illinois	228,463	237,488	42,436	52,350	1,211,148	468,944	40,067	47,344
Indiana	207,142	204,099	17,899	20,262	W	W	11,233	32,587
Iowa	175,782	256,299	6,534	19,558	W	W	5,518	16,937
Kansas	89,534	94,795	15,258	13,988	273,411	451,178	93,016	110,533
Kentucky	164,343	129,346	9,744	11,192	W	W	137,136	138,596
Michigan	432,612	395,192	46,572	39,224	34,098	W	60,692	60,441
Minnesota	188,417	219,280	9,852	17,462	W	W	15,284	37,434
Missouri	285,516	306,412	18,149	21,765	W	W	13,111	20,870
Nebraska	85,115	69,719	6,866	5,255	W	W	4,596	6,934
North Dakota	44,387	48,915	1,898	3,163	W	-	4,979	3,765
Ohio	282,756	270,125	48,083	57,020	W	72,782	254,701	257,524
Oklahoma	94,908	115,870	12,713	14,594	65,319	87,429	39,874	42,428
South Dakota	90,554	65,881	6,288	3,485	-	-	5,389	2,095
Tennessee	97,912	111,758	16,394	27,870	433	W	10,437	20,442
Wisconsin	236,341	239,955	17,186	19,195	W	W	13,952	24,344
Total	2,703,782	2,765,134	275,872	326,383	1,676,194	1,097,214	709,985	822,274
PAD Dist. III								
Alabama	147,622	125,768	12,430	14,606	W	483	11,828	12,707
Arkansas	99,920	121,083	9,337	9,167	W	W	3,596	4,166
Louisiana	52,707	55,816	11,278	9,411	1,714,360	1,746,462	188,800	176,542
Mississippi	104,466	89,298	19,582	19,199	W	W	11,919	14,063
New Mexico	52,970	52,720	8,903	9,220	W	W	2,473	3,412
Texas	366,965	348,126	55,942	76,427	9,626,360	8,023,475	328,849	306,213
Total	824,650	792,811	117,472	138,030	11,342,351	9,778,766	547,465	517,103
PAD Dist. IV								
Colorado	70,699	69,593	4,302	5,396	-	-	11,105	11,203
Idaho	12,064	14,791	3,845	5,941	-	-	5,824	6,862
Montana	34,081	32,914	4,222	5,036	W	W	8,563	14,282
Utah	31,365	31,689	6,410	7,145	W	W	7,338	5,961
Wyoming	63,837	39,711	5,493	4,804	W	W	12,685	17,333
Total	212,046	188,698	24,272	28,322	15,109	17,063	45,515	55,641
PAD Dist. V								
Alaska	8,715	W	864	W	-	-	W	W
Arizona	60,597	57,300	8,105	10,573	W	W	6,494	9,609
California	290,295	256,801	112,407	115,861	55,387	76,816	247,848	268,293
Hawaii	W	W	W	W	-	-	-	-
Nevada	28,961	34,161	2,367	2,763	W	-	7,016	6,298
Oregon	23,207	27,159	23,446	19,362	-	-	11,733	19,515
Washington	36,862	26,719	32,958	36,267	-	-	30,765	25,428
Total	455,247	417,550	180,910	185,558	55,457	77,087	305,198	330,951
U.S. Total	5,692,639	5,606,699	718,013	820,504	13,286,752	11,179,406	1,984,073	2,108,003

1/ The reported data strongly suggest that this category includes not only ethane, propane, butane and pentanes plus consumed as chemical feedstocks, but some refinery olefins and chemical plant fuel usage.
2/ Includes sales for refinery fuel use and synthetic rubber manufacture.
3/ Includes use as synthetic natural gas feedstock, and use in secondary recovery of petroleum.

W Data withheld to avoid disclosure of individual company data.

Source: API, "Sales of Natural Gas Liquids and Liquefied Refinery Gases," Annual Survey.

Gas Utility		Farm		Other 3/		Total		
1987	1986	1987	1986	1987	1986	1987	1986	District & State
								PAD Dist. I
								New England
W	W	2,348	754	3,190	2,566	61,194	46,933	...Connecticut
W	W	192	1,114	372	W	51,248	42,465	.....Maine
18,028	W	752	274	1,692	4,754	103,782	96,788	.Massachusetts
2,457	688	2,425	75	W	6,469	82,561	71,272	.New Hampshire
W	W	103	31	W	6,055	26,112	24,500	..Rhode Island
-	W	373	139	W	W	44,281	37,026	.....Vermont
								Central Atlantic
-	-	3,010	1,940	W	2,124	36,717	33,084	.....Delaware
W	W	3,857	3,421	3,906	3,013	69,569	60,335	.Maryland/D.C.
W	W	2,149	2,164	2,594	4,913	253,989	224,918	....New Jersey
W	W	7,246	7,616	3,028	1,040	221,601	209,498	.....New York
W	W	17,748	19,624	14,686	2,513	302,496	297,677	..Pennsylvania
								Lower Atlantic
17,236	12,612	17,068	17,942	8,574	4,652	355,202	453,200	.....Florida
267	W	45,450	49,903	3,747	5,849	259,812	282,443	.....Georgia
W	W	100,851	89,522	18,609	9,061	358,852	314,921	North Carolina
2,262	355	16,602	13,831	1,596	1,772	145,216	124,516	South Carolina
W	W	26,554	19,154	13,551	5,793	165,910	142,242	.....Virginia
W	W	2,461	705	W	167	38,761	39,948	.West Virginia
46,251	35,170	249,189	228,209	91,911	62,360	2,577,303	2,501,766	.....Total
								PAD Dist. II
25,958	351,113	123,367	254,471	15,690	13,479	1,687,129	1,425,189	.....Illinois
W	W	81,559	84,682	5,830	2,425	391,330	351,314	.....Indiana
W	-	181,744	292,817	3,755	698	376,321	589,213	.....Iowa
W	W	46,734	32,965	216,909	1,093	734,878	704,563	.....Kansas
W	228	19,639	6,636	737	228	339,715	297,974	.....Kentucky
3,565	52,396	53,042	50,265	214,645	250,789	845,226	848,358	.....Michigan
W	29	99,503	119,192	3,666	4,455	316,882	397,952	.....Minnesota
W	W	42,706	33,359	1,896	1,380	362,991	384,246	.....Missouri
-	-	102,779	80,767	59	577	199,644	163,387	.....Nebraska
W	W	30,593	28,400	6,583	5,136	88,660	89,402	..North Dakota
3,716	W	66,368	69,311	5,735	4,258	741,015	731,557	.....Ohio
W	W	37,292	32,383	3,975	7,123	254,970	299,829	.....Oklahoma
W	W	36,300	32,068	725	637	139,392	104,189	..South Dakota
W	W	17,946	4,252	2,867	2,013	146,545	167,142	.....Tennessee
W	W	46,633	61,017	7,151	2,087	321,385	347,047	.....Wisconsin
103,822	411,394	986,205	1,182,585	490,223	296,378	6,946,083	6,901,362	.....Total
								PAD Dist. III
W	-	26,415	21,446	1,320	233	199,828	175,243	.....Alabama
W	-	35,661	32,271	2,855	600	152,185	167,770	.....Arkansas
-	W	9,884	6,251	79,076	76,136	2,056,105	2,146,670	.....Louisiana
-	W	16,441	14,837	867	984	153,601	147,321	...Mississippi
-	W	2,012	3,903	1,057	856	67,827	71,193	....New Mexico
W	33,439	61,932	71,495	210,114	272,855	10,708,422	9,132,030	.....Texas
58,396	111,650	152,345	150,203	295,289	351,664	13,337,968	11,840,227	.....Total
								PAD Dist. IV
-	-	5,820	2,451	1,291	835	93,217	89,478	.....Colorado
-	-	2,787	2,474	847	650	25,367	30,718	.....Idaho
-	-	2,952	9,883	W	W	51,031	63,497	.....Montana
W	W	2,834	1,920	2,301	W	51,325	52,144	.....Utah
W	W	6,406	2,197	682	4,478	103,291	81,488	.....Wyoming
267	154	20,799	18,925	6,223	8,522	324,231	317,325	.....Total
								PAD Dist. V
-	-	W	W	W	W	11,799	13,300	.....Alaska
-	-	3,886	3,980	2,817	W	81,959	82,920	.....Arizona
30,083	60,821	34,916	35,764	22,335	17,051	793,271	831,407	....California
-	-	W	W	-	-	7,427	6,712	.....Hawaii
-	-	404	1,480	1,107	1,196	39,865	45,898	.....Nevada
-	-	5,044	5,171	775	689	64,205	71,896	.....Oregon
-	-	5,468	6,976	479	582	106,532	94,972	....Washington
30,083	60,821	50,264	53,966	27,899	21,172	1,105,058	1,147,105	.....Total
238,819	619,189	1,458,802	1,633,888	911,545	740,096	24,290,643	22,707,785	.....U.S. Total

Table 4. Sales of Propane, by Use, in the United States, by PAD District and State, 1987 and 1986 (Thousands of Gallons)

District & State	Residential & Commercial 1987	Residential & Commercial 1986	Internal Combustion Fuel 1987	Internal Combustion Fuel 1986	Chemical 1/ 1987	Chemical 1/ 1986	Industrial 2/ 1987	Industrial 2/ 1986
PAD Dist. I								
New England								
Connecticut	38,309	28,803	2,328	1,995	W	W	14,419	11,640
Maine	38,809	26,126	1,685	2,064	W	W	8,641	10,479
Massachusetts	65,539	58,262	5,570	5,574	-	-	12,117	9,423
New Hampshire	59,108	52,961	2,029	1,467	-	-	7,929	9,612
Rhode Island	14,644	13,120	906	1,649	-	W	5,916	3,489
Vermont	36,848	31,134	1,159	920	-	-	4,908	3,973
Central Atlantic								
Delaware	23,699	21,163	335	4,012	W	W	4,374	W
Maryland/D.C.	45,793	38,907	3,515	3,196	-	-	11,787	11,047
New Jersey	53,439	52,537	8,779	9,184	83,499	65,008	21,068	26,800
New York	184,829	168,187	9,452	9,698	W	W	15,619	20,752
Pennsylvania	108,235	101,385	16,538	17,237	W	W	47,451	45,900
Lower Atlantic								
Florida	264,214	328,669	21,247	39,381	W	W	22,750	25,178
Georgia	178,427	181,892	14,197	16,920	W	W	16,627	18,922
North Carolina	186,925	162,973	13,611	15,272	W	W	37,051	37,011
South Carolina	94,911	85,909	7,635	6,803	W	W	21,614	14,718
Virginia	90,136	78,466	8,937	5,079	W	W	26,319	32,160
West Virginia	13,018	11,693	1,564	1,760	W	W	986	1,893
Total	1,496,883	1,442,187	119,487	142,211	108,006	92,676	280,476	286,346
PAD Dist. II								
Illinois	228,463	237,488	42,436	52,350	254,780	53,964	33,006	36,592
Indiana	207,142	204,099	17,899	20,262	W	W	11,233	11,755
Iowa	175,782	256,299	6,534	19,551	-	-	5,518	16,937
Kansas	89,534	94,795	15,258	13,969	W	6,070	34,950	31,727
Kentucky	164,343	129,346	9,744	11,192	W	W	115,516	92,915
Michigan	432,612	395,192	46,572	39,224	W	-	60,692	60,174
Minnesota	188,417	219,280	9,852	17,462	-	-	15,284	37,434
Missouri	285,516	306,412	18,149	21,765	W	-	13,111	20,847
Nebraska	85,115	69,719	6,866	5,255	W	-	4,596	6,934
North Dakota	44,387	48,915	1,898	3,163	W	-	4,979	3,765
Ohio	282,756	270,125	48,083	57,020	W	W	49,103	46,839
Oklahoma	94,908	115,870	12,713	14,594	W	W	39,874	42,428
South Dakota	90,554	65,881	6,288	3,485	-	-	5,389	2,095
Tennessee	97,912	111,758	16,394	27,870	W	W	10,437	20,442
Wisconsin	236,341	239,955	17,186	19,195	-	W	13,952	24,344
Total	2,703,782	2,765,134	275,872	326,357	393,875	143,190	417,640	455,228
PAD Dist. III								
Alabama	147,596	125,628	12,430	14,606	W	W	11,828	12,656
Arkansas	99,920	121,083	9,337	9,167	-	-	3,596	4,166
Louisiana	52,707	55,816	11,278	9,411	368,989	347,989	16,214	16,256
Mississippi	104,075	88,946	19,582	19,199	-	W	11,003	13,960
New Mexico	52,970	52,720	8,903	9,220	-	W	2,473	3,412
Texas	366,352	347,749	55,942	76,427	3,968,272	2,435,175	104,932	101,096
Total	823,620	791,942	117,472	138,030	4,337,346	2,790,657	150,046	151,546
PAD Dist. IV								
Colorado	70,699	69,593	4,302	5,396	-	-	8,420	11,202
Idaho	12,064	14,791	3,845	5,941	-	-	5,824	6,862
Montana	34,081	32,914	4,222	5,036	W	-	8,563	14,282
Utah	23,632	22,174	6,012	6,656	-	-	7,020	5,749
Wyoming	57,659	31,268	5,178	4,417	W	-	12,415	17,031
Total	198,135	170,740	23,559	27,446	5,771	-	42,242	55,126
PAD Dist. V								
Alaska	8,715	W	864	W	-	-	W	W
Arizona	57,459	57,283	8,105	10,573	-	-	6,494	9,160
California	287,150	255,361	112,283	115,853	53,996	W	143,669	150,816
Hawaii	W	W	W	W	-	-	-	-
Nevada	28,961	34,161	2,367	2,763	-	-	7,016	6,294
Oregon	23,207	27,159	23,446	19,362	-	-	11,386	19,279
Washington	36,862	26,719	32,958	35,203	-	-	13,483	15,656
Total	448,964	416,093	180,786	185,486	53,996	74,987	183,390	203,013
U.S. Total	5,671,384	5,586,096	717,176	819,530	4,898,994	3,101,510	1,073,794	1,151,259

1/ The reported data strongly suggest that this category includes not only propane consumed as a chemical feedstock, but some refinery olefins and chemical plant fuel usage.
2/ Includes sales for refinery fuel use.

W Data withheld to avoid disclosure of individual company data.

Source: API, "Sales of Natural Gas Liquids and Liquefied Refinery Gases," Annual Survey.

Gas Utility 1987	Gas Utility 1986	Farm 1987	Farm 1986	Other 1987	Other 1986	Total 1987	Total 1986	District & State
								PAD Dist. I
								New England
W	W	2,348	754	2,497	319	60,501	44,136	...Connecticut
W	W	192	1,114	372	W	51,248	42,465	.....Maine
18,028	W	752	274	953	839	102,959	90,850	.Massachusetts
2,457	688	2,425	75	W	6,469	82,561	71,272	.New Hampshire
W	W	103	31	W	345	24,465	18,790	..Rhode Island
-	W	373	139	W	W	44,281	37,026	.....Vermont
								Central Atlantic
-	-	3,010	1,940	W	2,124	36,717	33,084	.....Delaware
W	-	3,857	3,421	3,715	2,217	69,378	58,788	.Maryland/D.C.
W	W	2,149	2,164	1,585	666	171,251	157,439	....New Jersey
W	W	7,246	7,616	2,968	1,040	221,505	208,271	.....New York
W	-	17,748	19,624	14,482	1,948	205,110	186,199	..Pennsylvania
								Lower Atlantic
17,236	12,612	17,068	17,942	8,574	4,652	351,098	429,713	.....Florida
267	W	45,450	49,903	2,659	3,886	257,922	272,221	.....Georgia
W	W	100,851	89,522	16,777	4,308	356,636	309,587	North Carolina
2,262	355	16,602	13,831	1,545	787	144,832	122,678	South Carolina
W	W	26,554	19,154	13,535	5,762	165,587	141,783	.....Virginia
W	W	2,461	705	W	167	38,622	38,196	.West Virginia
46,251	33,721	249,189	228,209	84,381	37,148	2,384,673	2,262,498	.....Total
								PAD Dist. II
W	W	123,367	254,471	5,062	2,445	688,646	721,452	.....Illinois
W	W	81,559	84,682	5,258	1,642	390,302	329,128	.....Indiana
W	-	181,744	292,817	3,731	401	373,554	586,005	.....Iowa
W	W	46,734	32,965	4,819	943	209,937	180,480	.....Kansas
W	228	19,639	6,636	737	228	317,630	251,123	.....Kentucky
3,565	52,396	53,042	50,265	105,429	98,001	735,740	695,252	.....Michigan
W	29	99,503	119,192	1,817	2,317	314,961	395,714	.....Minnesota
W	W	42,706	33,359	1,332	1,008	361,960	383,653	.....Missouri
-	-	102,779	80,767	59	550	199,568	163,225	.....Nebraska
W	W	30,593	28,400	6,583	5,136	88,566	89,402	..North Dakota
3,716	W	66,368	69,311	5,196	3,116	533,951	518,888	.....Ohio
W	W	37,292	32,383	478	277	186,166	205,670	.....Oklahoma
W	W	36,300	32,068	725	637	139,392	104,189	..South Dakota
W	W	17,946	4,252	1,539	550	144,979	165,330	.....Tennessee
W	W	46,633	61,017	7,073	1,998	321,256	346,655	.....Wisconsin
79,396	144,423	986,205	1,182,585	149,838	119,249	5,006,608	5,136,166	.....Total
								PAD Dist. III
W	-	26,415	21,446	1,320	233	199,686	174,913	.....Alabama
W	-	35,644	32,258	2,751	538	151,370	167,212	.....Arkansas
-	W	9,884	6,251	4,557	7,380	463,629	519,155	.....Louisiana
-	W	16,441	14,837	851	974	151,952	146,667	...Mississippi
-	W	2,012	3,903	990	856	67,348	70,668	....New Mexico
W	33,439	61,871	71,294	7,678	12,922	4,623,307	3,078,102	.....Texas
58,394	111,650	152,267	149,989	18,147	22,903	5,657,292	4,156,717	.....Total
								PAD Dist. IV
-	-	5,820	2,451	1,291	835	90,532	89,477	.....Colorado
-	-	2,787	2,474	847	650	25,367	30,718	.....Idaho
-	-	2,952	9,883	W	W	50,956	63,384	.....Montana
W	W	2,834	1,920	2,301	W	41,868	37,892	.....Utah
W	W	6,406	2,197	682	614	88,273	55,578	.....Wyoming
267	154	20,799	18,925	6,223	4,658	296,996	277,049	.....Total
								PAD Dist. V
-	-	W	W	W	W	11,799	13,300	.....Alaska
-	-	3,886	3,980	2,817	W	78,761	82,183	.....Arizona
4,048	4,817	34,366	35,429	21,839	16,690	657,351	653,953	....California
-	-	W	W	-	-	7,427	6,712	.....Hawaii
-	-	404	1,480	1,107	1,196	39,855	45,894	.....Nevada
-	-	5,034	5,171	775	689	63,248	71,660	.....Oregon
-	-	5,468	6,976	479	582	89,250	85,136	....Washington
4,048	4,817	49,704	53,631	27,403	20,811	948,291	958,838	.....Total
188,356	294,765	1,458,164	1,633,339	285,992	204,769	14,293,860	12,791,268	.....U.S. Total

Table 5. Sales of Butane, by Use, in the United States, by PAD District and State, 1987 and 1986 (Thousands of Gallons)

District & State	Residential & Commercial 1987	Residential & Commercial 1986	Internal Combustion Fuel 1987	Internal Combustion Fuel 1986	Chemical 1/ 1987	Chemical 1/ 1986	Industrial 2/ 1987	Industrial 2/ 1986
PAD Dist. I								
New England								
Connecticut	-	-	-	-	-	-	-	-
Maine	-	-	-	-	-	-	-	-
Massachusetts	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-
Central Atlantic								
Delaware	-	-	-	-	-	-	-	-
Maryland/D.C.	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	W	W	-	-
New York	-	-	-	-	W	W	-	-
Pennsylvania	-	-	-	-	-	-	-	-
Lower Atlantic								
Florida	W	W	-	-	W	W	-	-
Georgia	-	-	-	-	-	-	-	-
North Carolina	-	-	-	-	W	W	-	-
South Carolina	-	W	-	-	W	W	-	-
Virginia	-	-	-	-	W	W	-	-
West Virginia	-	-	-	-	-	W	-	-
Total	31	319	-	-	81,218	48,367	-	-
PAD Dist. II								
Illinois	-	-	-	-	W	21,066	7,061	10,752
Indiana	-	-	-	-	W	W	-	-
Iowa	-	-	-	W	W	W	-	-
Kansas	-	-	-	W	W	25,896	-	W
Kentucky	-	-	-	-	-	-	W	W
Michigan	-	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-	-
Missouri	-	-	-	-	-	-	-	W
Nebraska	-	-	-	-	W	W	-	-
North Dakota	-	-	-	-	W	-	-	-
Ohio	-	-	-	-	-	-	-	W
Oklahoma	-	-	-	-	W	74,939	-	-
South Dakota	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	W	-	-
Total	-	-	-	26	81,675	124,338	23,360	36,388
PAD Dist. III								
Alabama	26	140	-	-	W	W	-	-
Arkansas	-	-	-	-	W	W	-	-
Louisiana	-	-	-	-	367,058	364,936	W	5,295
Mississippi	391	352	-	-	-	-	W	W
New Mexico	-	-	-	-	W	W	-	-
Texas	613	377	-	-	871,067	622,443	W	27,798
Total	1,030	869	-	-	1,238,729	987,996	77,734	33,196
PAD Dist. IV								
Colorado	-	-	-	-	-	-	W	W
Idaho	-	-	-	-	-	-	-	-
Montana	-	-	-	-	W	-	-	-
Utah	W	W	W	W	W	W	W	W
Wyoming	W	W	W	W	W	W	W	W
Total	13,911	17,958	713	876	5,815	3,942	3,087	255
PAD Dist. V								
Alaska	-	-	-	-	-	-	-	-
Arizona	W	W	-	-	-	-	-	W
California	3,145	1,440	W	W	W	W	97,572	109,093
Hawaii	-	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-	W
Oregon	-	-	-	-	-	-	W	W
Washington	-	-	-	W	-	-	W	W
Total	6,283	1,457	124	72	1,060	1,159	115,201	119,554
U.S. Total	21,255	20,603	837	974	1,408,497	1,165,802	219,382	189,393

1/ The reported data strongly suggest that this category includes not only butane consumed as a chemical feedstock, but some refinery olefins and chemical plant fuel usage.
2/ Includes sales for refinery fuel use and synthetic rubber manufacture.
3/ Includes use in secondary recovery of petroleum.

W Data withheld to avoid disclosure of individual company data.

Source: API, "Sales of Natural Gas Liquids and Liquefied Refinery Gases," Annual Survey.

Gas Utility 1987	Gas Utility 1986	Farm 1987	Farm 1986	Other 3/ 1987	Other 3/ 1986	Total 1987	Total 1986	District & State
								PAD Dist. I
								New England
-	-	-	-	W	W	693	2,247	...Connecticut
-	-	-	-	-	-	-	-	.....Maine
-	-	-	-	W	W	732	3,865	.Massachusetts
-	-	-	-	-	-	-	-	.New Hampshire
-	-	-	-	W	W	1,647	5,710	..Rhode Island
-	-	-	-	-	-	-	-	.....Vermont
								Central Atlantic
-	-	-	-	-	-	-	-	.....Delaware
-	-	-	-	W	W	191	796	.Maryland/D.C.
-	-	-	-	W	W	81,330	50,472	....New Jersey
-	-	-	-	W	-	48	4	.....New York
-	-	-	-	W	W	204	565	..Pennsylvania
								Lower Atlantic
-	-	-	-	-	-	251	1,895	.....Florida
-	-	-	-	W	W	1,088	1,963	.....Georgia
-	-	-	-	W	W	1,960	4,808	North Carolina
-	-	-	-	W	-	278	289	South Carolina
-	-	-	-	W	W	284	120	..V...Virginia
-	-	-	-	-	-	-	4	.West Virginia
-	-	-	-	7,457	24,052	98,706	72,738	.....Total
								PAD Dist. II
-	-	-	-	W	W	35,380	42,736	.....Illinois
-	-	-	-	W	W	575	785	.....Indiana
-	-	-	-	W	W	1,842	2,181	.....Iowa
-	-	-	-	W	W	111,539	31,764	.....Kansas
-	-	-	-	-	-	16,299	19,431	.....Kentucky
-	-	-	-	W	W	82,103	105,940	.....Michigan
-	-	-	-	W	W	1,849	2,138	.....Minnesota
-	-	-	-	W	W	564	395	.....Missouri
-	-	-	-	-	W	8	59	.....Nebraska
-	-	-	-	-	-	23	-	..North Dakota
-	-	-	-	W	W	539	1,509	.....Ohio
-	-	-	-	-	-	55,275	74,939	.....Oklahoma
-	-	-	-	-	-	-	-	..South Dakota
-	-	-	-	W	W	1,328	1,463	.....Tennessee
-	-	-	-	W	W	78	328	.....Wisconsin
-	-	-	-	202,367	122,916	307,402	283,668	.....Total
								PAD Dist. III
W	-	-	-	-	-	33	159	.....Alabama
-	-	W	W	W	W	335	291	.....Arkansas
-	-	-	-	W	W	384,926	377,384	.....Louisiana
-	-	-	-	W	W	1,323	465	...Mississippi
-	-	-	-	-	-	385	382	....New Mexico
-	-	W	201	W	W	933,139	652,847	.....Texas
2	-	78	214	2,568	9,253	1,320,141	1,031,528	.....Total
								PAD Dist. IV
-	-	-	-	-	-	2,685	1	.....Colorado
-	-	-	-	-	-	-	-	.....Idaho
-	-	-	-	-	-	17	-	.....Montana
-	-	-	-	-	-	9,175	11,101	.....Utah
-	-	-	-	-	W	11,649	12,250	.....Wyoming
-	-	-	-	-	321	23,526	23,352	.....Total
								PAD Dist. V
-	-	-	-	-	-	-	-	.....Alaska
-	-	-	-	-	-	3,138	466	.....Arizona
-	-	550	335	W	W	102,708	112,371	....California
-	-	-	-	-	-	-	-	.....Hawaii
-	-	-	-	-	-	-	4	.....Nevada
-	-	W	-	-	-	357	236	.....Oregon
-	-	-	-	-	-	17,282	9,836	....Washington
-	-	560	335	257	336	123,485	122,913	.....Total
2	-	638	549	212,649	156,878	1,863,260	1,534,199	.....U.S. Total

Table 6. Sales of Ethane by use, in the United States, by PAD District and State, 1987 and 1986 (Thousands of Gallons)

District & State	Residential & Commercial 1987	Residential & Commercial 1986	Internal Combustion Fuel 1987	Internal Combustion Fuel 1986	Chemical 1987	Chemical 1986	Industrial 1/ 1987	Industrial 1/ 1986
PAD Dist. I	-	-	-	-	3,807	20,463	95,434	95,688
PAD Dist. II	-	-	-	-	1,165,602	726,832	268,985	330,658
PAD Dist. III	-	-	-	-	5,296,578	5,465,754	319,685	332,361
PAD Dist. IV	-	-	-	-	260	17	186	260
PAD Dist. V	-	-	-	-	-	-	6,607	8,384
U.S. Total.....	-	-	-	-	6,466,247	6,213,066	690,897	767,351

Table 7. Sales of Pentanes Plus by Use, in the United States, by PAD District and State, 1987 and 1986 (Thousands of Gallons)

District & State	Residential & Commercial 1987	Residential & Commercial 1986	Internal Combustion Fuel 1987	Internal Combustion Fuel 1986	Chemical 1987	Chemical 1986	Industrial 1/ 1987	Industrial 1/ 1986
PAD Dist. I	-	-	-	-	4,610	47,770	-	-
PAD Dist. II	-	-	-	-	35,042	102,854	-	-
PAD Dist. III	-	-	-	-	469,698	534,359	-	-
PAD Dist. IV	-	-	-	-	3,263	13,104	-	-
PAD Dist. V	-	-	-	-	401	941	-	-
U.S. Total.....	-	-	-	-	513,014	699,028	-	-

1/ The reported data strongly suggest that this category includes not only ethane, propane, butane and pentanes plus consumed as chemical feedstocks, but some refinery olefins and chemical plant fuel usage.
2/ Includes sales for refinery fuel use and synthetic rubber manufacture.
3/ Includes use as synthetic natural gas feedstock, and use in secondary recovery of petroleum.

W Data withheld to avoid disclosure of individual company data.

Source: API, "Sales of Natural Gas Liquids and Liquefied Refinery Gases," Annual Survey.

Gas Utility		Farm		Other 2/		Total		
1987	1986	1987	1986	1987	1986	1987	1986	District & State
-	1,449	-	-	-	-	99,241	117,600	PAD Dist. I
24,426	266,971	-	-	734	2,003	1,459,747	1,326,464	PAD Dist. II
-	-	-	-	272,953	319,459	5,889,216	6,117,574	PAD Dist. III
-	-	-	-	-	855	446	1,132	PAD Dist. IV
26,035	56,004	-	-	-	-	32,642	64,388	PAD Dist. V
50,461	324,424	-	-	273,687	322,317	7,481,292	7,627,158	.....U.S. Total

Gas Utility		Farm		Other 2/		Total		
1987	1986	1987	1986	1987	1986	1987	1986	District & State
-	-	-	-	73	1,160	4,683	48,930	PAD Dist. I
-	-	-	-	137,284	52,210	172,326	155,064	PAD Dist. II
-	-	-	-	1,621	49	471,319	534,408	PAD Dist. III
-	-	-	-	-	2,688	3,263	15,792	PAD Dist. IV
-	-	-	-	239	25	640	966	PAD Dist. V
-	-	-	-	139,217	56,132	652,231	755,160	.....U.S. Total

Table 8. Sales of Natural Gas Liquids and Liquefied Refinery Gases for Gasoline Blending by Product Type, PAD District and State, 1987 and 1986 (Thousands of Gallons)

District & State	Butane		Pentanes Plus		Total	
	1987	1986	1987	1986	1987	1986
PAD Dist. I						
New England						
Connecticut...	-	-	-	-	-	-
Maine.....	-	-	-	-	-	-
Massachusetts.	-	-	-	-	-	-
New Hampshire.	-	-	-	-	-	-
Rhode Island..	-	-	-	-	-	-
Vermont.....	-	-	-	-	-	-
Central Atlantic						
Delaware.....	W	W	-	-	16,400	17,872
Maryland/D.C..	-	-	-	-	-	-
New Jersey....	93,632	131,781	W	-	94,405	131,781
New York.....	-	-	-	-	-	-
Pennsylvania..	W	312,107	W	-	184,623	312,107
Lower Atlantic						
Florida.....	-	W	W	W	24,804	187,005
Georgia.....	-	-	-	-	-	-
North Carolina	-	-	-	-	-	-
South Carolina	-	-	-	-	-	-
Virginia.....	-	-	-	-	-	-
West Virginia.	-	-	-	-	-	-
Total.....	251,911	464,175	68,321	184,590	320,232	648,765
PAD Dist. II						
Illinois.....	444,180	636,318	59,288	139,595	503,468	775,913
Indiana.....	30,635	96,605	W	W	130,583	219,929
Iowa.....	-	-	-	-	-	-
Kansas.....	470,711	451,874	602,376	495,878	1,073,087	947,752
Kentucky.....	W	98,855	W	W	114,004	121,621
Michigan.....	71,082	63,230	W	W	71,171	63,306
Minnesota.....	W	W	-	-	12,624	19,225
Missouri.....	W	W	-	-	649	365
Nebraska.....	W	W	W	W	1,395	911
North Dakota..	35,286	56,741	25,545	11,866	60,831	68,607
Ohio.....	W	W	-	-	43,622	60,065
Oklahoma.....	130,495	142,865	40,497	59,877	170,992	202,742
South Dakota..	W	-	-	-	368	-
Tennessee.....	-	-	-	-	-	-
Wisconsin.....	-	-	-	-	-	-
Total.....	1,337,363	1,626,618	845,431	853,818	2,182,794	2,480,436
PAD Dist. III						
Alabama.....	W	W	W	W	8,891	1,298
Arkansas.....	W	W	W	W	2,374	5,297
Louisiana.....	1,370,559	1,372,750	614,835	349,579	1,985,394	1,722,329
Mississippi...	W	W	-	-	30,594	24,568
New Mexico....	2,293	22,343	59,192	51,396	61,485	73,739
Texas.....	1,803,076	1,819,329	2,136,403	1,687,138	3,939,479	3,506,467
Total.....	3,216,835	3,244,576	2,811,382	2,089,122	6,028,217	5,333,698
PAD Dist. IV						
Colorado.....	12,323	8,301	3,233	24,380	15,556	32,681
Idaho.....	W	-	-	-	252	-
Montana.....	91,745	W	W	W	97,332	16,025
Utah.....	81,606	67,148	30,932	209,671	112,538	276,819
Wyoming.....	46,628	95,723	25,284	98,838	71,912	194,561
Total.....	232,554	173,292	65,036	346,794	297,590	520,086
PAD Dist. V						
Alaska.....	-	-	W	-	4	-
Arizona.....	19,694	W	-	W	19,694	9,350
California....	489,933	243,956	157,008	260,516	646,941	504,472
Hawaii.....	-	-	-	-	-	-
Nevada.....	-	W	-	-	-	132
Oregon.....	-	-	W	W	9	73
Washington....	178,102	102,569	-	-	178,102	102,569
Total.....	687,729	355,902	157,021	260,694	844,750	616,596
U.S. Total.....	5,726,392	5,864,563	3,947,191	3,735,018	9,673,583	9,599,581

W Data withheld to avoid disclosure of individual company data.

Source: API, "Sales of Natural Gas Liquids and Liquefied Refinery Gases," Annual Survey.

PRODUCT DESCRIPTIONS AND DEFINITIONS

ETHANE—A normally gaseous paraffinic compound (C_2H_6). Include ethane sold in an ethane-propane mix. Note: Report ethane-ethylene mixtures for chemical use under Section A5. Subheading a. "Raw Materials and Solvents for Chemical Plants."

PROPANE—Include all products covered by the Gas Processors Association (GPA) specifications for commercial and HD-5 propane including propane sold in ethane-propane and butane-propane mixes. Also include propylene in this category.

BUTANE—Include all products covered by GPA specifications for commercial butane including butane sold in a butane-propane mix. Also include isobutane and butylene in this category.

PENTANES-PLUS—A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Include isopentane, natural gasoline and plant condensate. Exclude field condensate which is mixed with crude oil and reported as part of crude oil and field condensate production to DOE.

LIQUEFIED REFINERY GASES (LRG)

Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration they are retained in the liquid state. The reporting categories are ethane/ethylene, propane/propylene, normal butane/butylene. Excludes still gas used for chemical or rubber manufacture which is reported as a petrochemical feedstock and also excludes liquefied petroleum gases intended for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstock or other uses.

STILL GAS (REFINERY GAS)

Any form of mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is reported to DOE for petrochemical feedstock use and/or refinery fuel use, but they should not be reported on this survey form if used in the gaseous state.

RESIDENTIAL AND COMMERCIAL USES—Include liquefied petroleum gases sold for use in private households and commercial establishments such as motels, restaurants, retail stores, laundries, etc., primarily for use in space heating, water heating and cooking. *LP gases used for space heating and cooking in farm houses should be reported under FARM USES.*

INTERNAL-COMBUSTION ENGINE FUEL—Include liquefied gases for use in highway vehicles, forklifts, oil-field drilling and production equipment, etc. *LP gases used for tractors and irrigation engines and other agricultural vehicles should be reported under FARM USES.*

INDUSTRIAL USES—Include liquefied petroleum gases sold to manufacturing plants for such uses as standby fuel, space heating, flame cutting, metallurgical furnaces etc. Include sales to petroleum refineries for fuel use. For internal use, include NGLs and LRGs consumed by your company as fuel. *Sales or internal use of NGLs and LRGs for gasoline blending should not be reported in this category. Such sales or internal use should be reported in Section B2.*

GAS DISTRIBUTION COMPANIES—Include sales of ethane and liquefied petroleum gases sold to gas utility companies for use as a standby fuel or direct distribution in gas mains.

RAW MATERIALS AND SOLVENTS FOR CHEMICAL PLANTS—Include natural gas liquids or liquified refinery gases sold or used internally as raw materials and solvents in the manufacture of chemicals. Also include volumes used in the production of synthetic rubber. *Sales to chemical plants for use as plant fuel should be reported in the "industrial use" category.*

FARM USES—Include liquefied petroleum gases sold for use in tractors, irrigation engines, *space heating of buildings (including farm houses)*, cooking, crop drying, tobacco curing, flame cultivation, poultry breeding, and other agricultural applications.

ALL OTHER USES—Include natural gas liquids, and liquefied refinery gas sold or used for any purpose not covered in the above categories, including secondary recovery use. Include NGLs and LRGs for use as SNG feedstock. Sales to SNG plants for use as plant fuel should be reported in the "industrial use" category.

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